

4. The compound of claims 3, wherein said linker is selected from the group consisting of

$$-\text{C}\equiv\text{C}-\text{CH}_2-\text{NH}-\text{CO}- (\text{CH}_2)_5-\text{NH}-\text{CO}-,$$

$$-\text{C}\equiv\text{C}-\text{CH}_2-\text{NH}-\text{CO}-\text{(CH}_2\text{)}_9-\text{NH}-\text{SO}_3-,$$

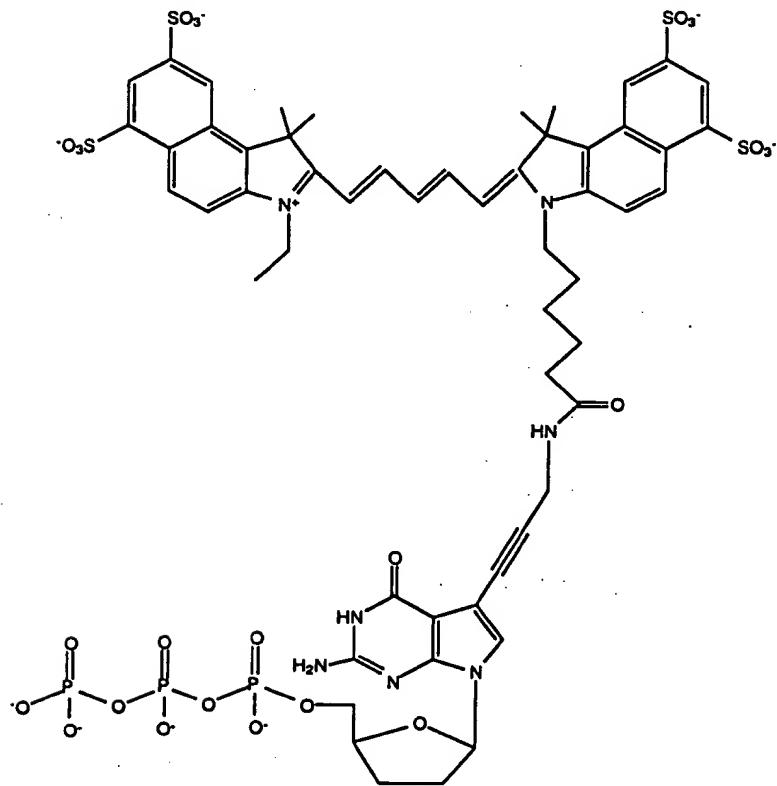
5 -C≡C-CH<sub>2</sub>-NH-CO-(CH<sub>2</sub>)<sub>10</sub>-NH-CO-,

$$-\text{C}\equiv\text{C}-\text{CH}_2-\text{NH}-\text{CO}-\text{(CH}_2\text{)}_5-,$$

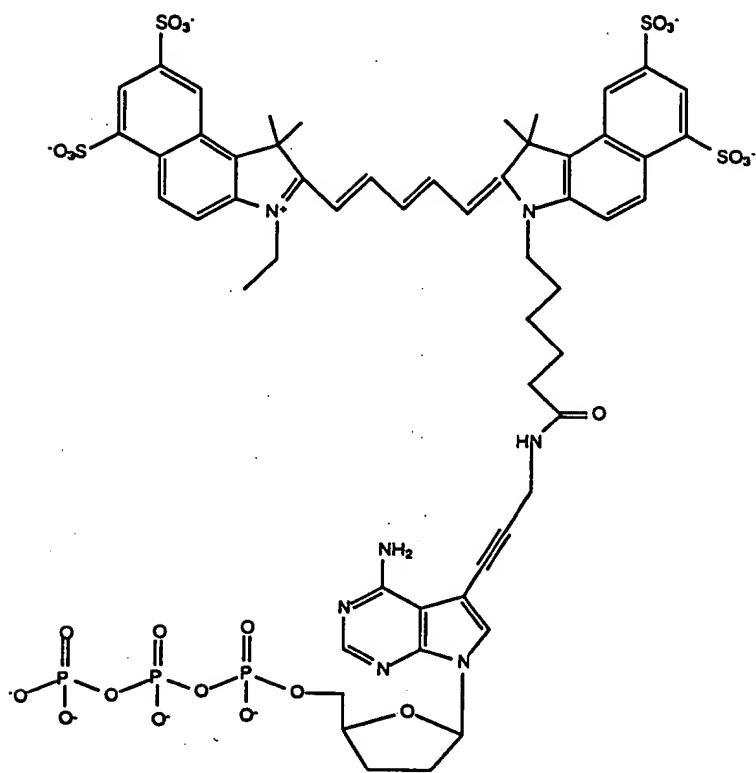
$-C \equiv C - CH_2 - NH - CO - (CH_2)_5 - NH - CO - (CH_2)_5 -$ , and

$$-\text{C}\equiv\text{C}-\text{CH}_2-\text{NH}-\text{CO}-\text{(CH}_2\text{)}_5-\text{NH}-\text{CO}-\text{(CH}_2\text{)}_{10}-\text{NH}-\text{CO}-$$

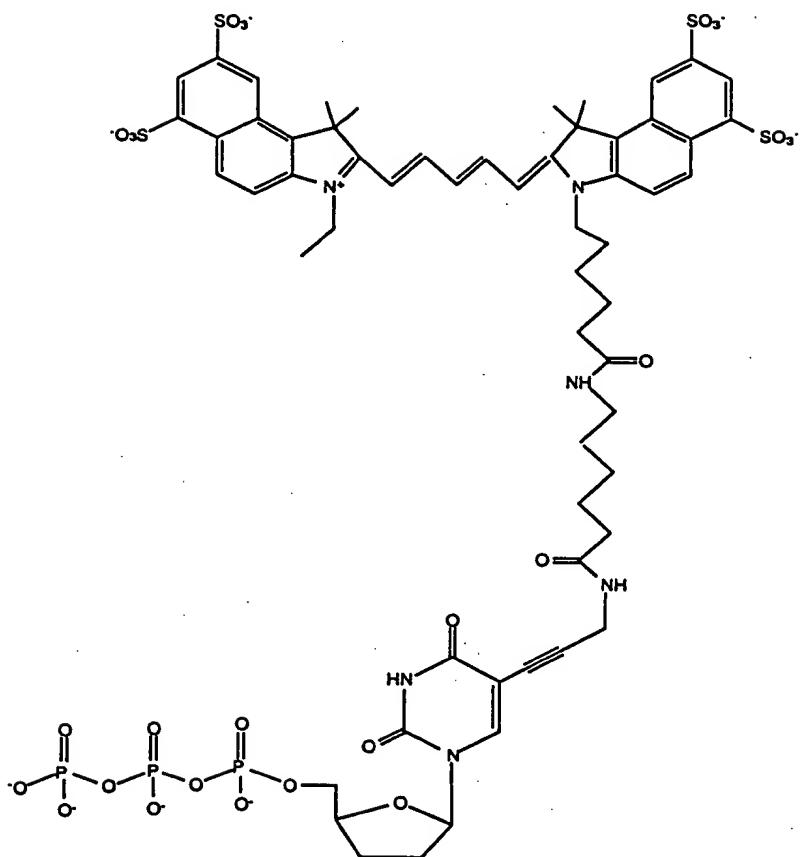
## 5. A compound of the formula (II):



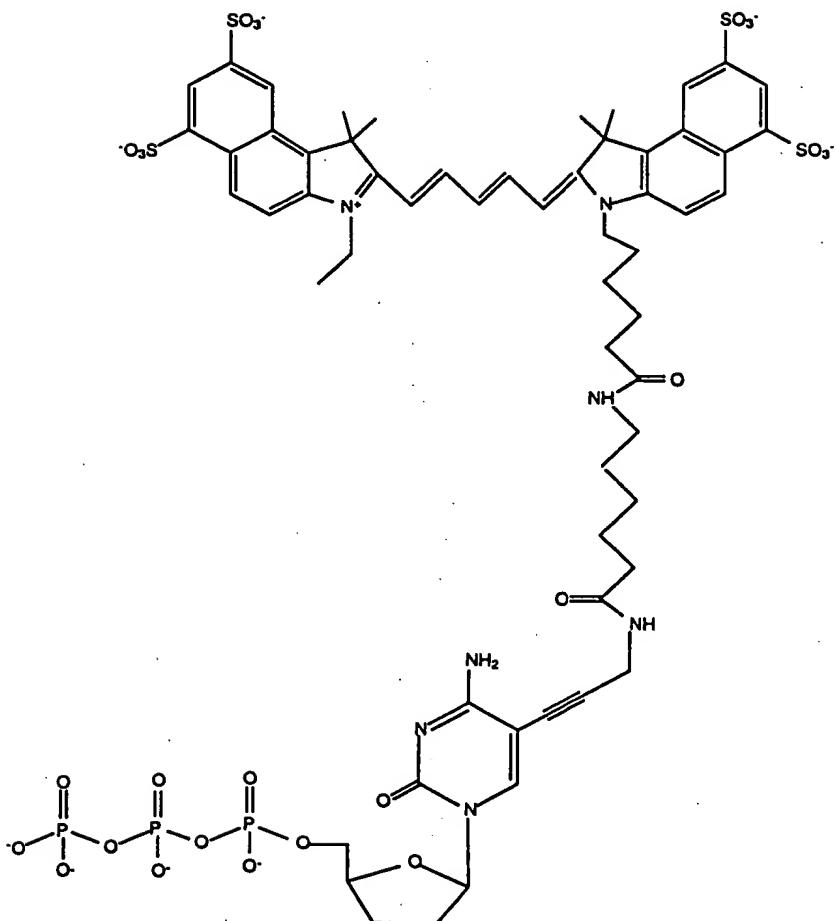
6. A compound of the formula (III):



7. A compound of the formula (IV) :



8. A compound of the formula (V):



9. A deoxyribonucleic acid sequence containing the  
5 compound of formula I.

*Sub A2* *✓*  
 10. A deoxyribonucleic acid sequence containing the  
compound of formula II, III, IV, or V.

11. A kit for DNA sequencing comprising compounds of  
10 formula II, III, IV, and V.

12. The kit of claim 11, further comprising a thermostable DNA polymerase.

13. The kit of claim 12, wherein said polymerase is a thermostable DNA polymerase that has an altered dNMP 5 binding site so as to improve the incorporation of dideoxynucleotides relative to the natural polymerase.

14. Method for determining the nucleotide base sequence of a DNA molecule comprising the steps of:

10 incubating a DNA molecule annealed with a primer molecule able to hybridize to said DNA molecule in a vessel containing a thermostable DNA polymerase, one of a set of four dye terminators with a linker of at least 10 atoms between the dye and the nucleotide and

15 separating DNA products of the incubating reaction according to size whereby at least a part of the nucleotide base sequence of said DNA molecule can be determined.

15. Method for determining the nucleotide base sequence of a DNA molecule comprising the steps of:

20 incubating a DNA molecule annealed with a primer molecule able to hybridize to said DNA molecule in a vessel containing a thermostable DNA polymerase, a compound of formula I and

25 separating DNA products of the incubating reaction according to size whereby at least a part of the nucleotide base sequence of said DNA molecule can be determined.

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16. Method for determining the nucleotide base sequence of a DNA molecule comprising the steps of:

5                   incubating a DNA molecule annealed with a primer molecule able to hybridize to said DNA molecule in a vessel containing a thermostable DNA, a compound of formula II, III, IV, or V and

10                  separating DNA products of the incubating reaction according to size whereby at least a part of the nucleotide base sequence of said DNA molecule can be determined.

17. The method of any of claims 14, 15, or 16 wherein said polymerase is a thermostable DNA polymerase that has an altered dNMP binding site so as to improve the incorporation of dideoxynucleotides relative to the  
15 natural polymerase.